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10/628,412

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Min Jang

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KED & ASSOCIATES, LLP
P.O. Box 221200
Chantilly, VA 20153-1200

EXAMINER

YUEN, KAN

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/628,412

Applicant(s)

JANG, MIN

Examiner

Kan Yuen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 32 is/are rejected.
- 7) ☐ Claim(s) 30 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 10/21/2004, 8/11/2005.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 3, 8-12, 30, and 31 are objected to because of the following informalities:

In claim 3, line 2, the phrase "the Internet protocol address is one of: a static internet protocol address; and a dynamically allocated internet protocol address."

Should be changed to "the Internet protocol address is one of: a static Internet protocol address; or a dynamically allocated Internet protocol address."

In claim 8, line 2, the term "an active network address" seems to refer back to the same term in claim 7, line 2. If this is true, it is suggested to change the term "an active network address" to "the active network address".

In claim 11, line 1, the term "a packet call" seems to refer back to the same term in claim 8, lines 2-3. If this is true, it is suggested to change the term "a packet call" to "the packet call". Also in line 2, the term "a packet data protocol context database" seems to refer back to the term "the packet data protocol context database" in claim 10, line 2. If this is true, it is suggested to change the term "a packet data protocol context database" to "the packet data protocol context database".

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In claim 30, line 4, the term "an inactive state" seems to refer back to the same term in claim 29, line 6. If this is true, it is suggested to change the term "an inactive state", to "the inactive state".

Claims 9-12 are objected to because it is depending on claim 8.

Claim 31 is objected to because it is depending on claim 30.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15-17, 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is considered as vague and indefinite, because the claim consists of method and apparatus. It is unclear if the claim is a method or apparatus claim.

In claim 21, lines 2-3, the term "the corresponding subscriber" has no antecedent basis.

Claims 16 and 17 are rejected, because they are depending on claim 15.

Claims 22-26 are rejected, because they are depending on claim 21.

Claim Rejections - 35 USC § 101

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35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 provides for the use of a network address, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-17 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-9, 13-16, 18-21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Egan et al. (Pat No.: 6937572).

For claims 1-9, 13-16, 18-21, and 23, Egan et al. disclosed the methods of:

Regarding to claim 1, searching a mobile communication system for use of a network address (see column 3, lines 29-40).

Regarding to claim 2, the network address is an Internet protocol address (see column 3, lines 29-40).

Regarding to claim 3, the Internet protocol address is one of: a static Internet protocol address; and a dynamically allocated Internet protocol address (see column 3, lines 29-40).

Regarding to claim 4, searching is responsive to a request from a network management center including identification of the network address (see column 4, lines 25-35). As disclosed in the reference, the terminal proxy server receives call trace target information from the requesting device, and that can be interpreted as a Network Management Center.

Regarding to claim 5, the request from the network management center is responsive to a request from an Internet protocol network including identification of the network address (see column 4, lines 25-35).

Regarding to claim 6, the searching comprises at least one of tracing and monitoring the network address (see column 3, lines 29-40).

Regarding to claim 7, the tracing and monitoring comprises determining if the network address is an active network address in the mobile communication system (see column 4, lines 25-35). The reference disclosed that the terminal proxy server checks its own database to retrieve the information pertaining to call trace.

Regarding to claim 8, if it is determined that the network address is an active network address in the mobile communication system, then determining if a packet call having the network address exists in a packet data protocol context database (see column 4, lines 25-35).

Regarding to claim 9, if it is determined that the network address exists in the packet data protocol context database, then performing at least one of tracing and monitoring of the network address (see column 4, lines 25-35).

Regarding to claim 13, the searching comprises transmitting results of the at least one of tracing and monitoring the network address (see column 4, lines 25-40).

Regarding to claim 14, the transmitting is to a network management center (see column 4, lines 25-40). As disclosed in the reference, the terminal proxy server can be interpreted as a Network Management Center and a SGSN, because the terminal proxy server receives requesting signal from the requesting device (Fig. 1 SET A or SET B, both can be wireless device), and it check its own database and retrieve the information from its own database.

Regarding to claim 15, an apparatus configured to implement the method of claim 1 (see column 3, lines 29-40).

Regarding to claim 16, the apparatus is comprised in a serving GPRS support node (see column 3, lines 45-60). As already stated in claim 14, the terminal proxy server can be interpreted as a Network Management Center and a SGSN, because the terminal proxy server receives requesting signal from the requesting device, and it check its own database and retrieve the information from its own database.

Regarding to claim 18, an interface (see Fig. 1, SET B VOIP) to an internet protocol network (see Fig. 1, Internet); and a means for tracing and monitoring a packet call of a mobile communication subscriber who has connected to the internet protocol network through the interface (see column 3, lines 29-40). The interface could be for example in SET B VOIP that connects to the Internet.

Regarding to claim 19, performing a packet call tracing and monitoring of a mobile communication subscriber (see Fig. 1, SET A, refers to as a wireless mobile user) using a subscriber Internet protocol (IP) of an IP network (see column 3, lines 29-40).

Regarding to claim 20, the method comprising: a first step of a related agency transmitting a target Internet protocol (IP) address subject to a request for tracing and monitoring to the network management center of the mobile communication system (see column 3, lines 47-55); a second step of the network management center requesting a packet call tracing and monitoring of the target IP address to the SGSN (see column 4, lines 25-32); and a third step of the SGSN tracing and monitoring the packet call of the target IP address and transmitting a result of the packet call tracing and monitoring to the network management center (see column 4, lines 32-38). As

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stated in claim 14, the terminal proxy server can be interpreted as a Network Management Center and a SGSN, because the terminal proxy server receives requesting signal from the requesting device, and it check its own database and retrieve the information from its own database.

Regarding to claim 21, checking whether the target IP address is an effective IP in a network to which the corresponding subscriber belongs; if it is checked that the target IP address is the effective IP address, activating the call tracing and monitoring of the target IP address (see column 4, lines 20-30); and performing the packet call tracing and monitoring and transmitting the result of the packet call tracing and monitoring (see column 4, lines 32-38).

Regarding to claim 23, the step of activating the packet call tracing and monitoring of the target IP address comprises the steps of: the SGSN judging whether the packet call having the target IP address exists in a packet data protocol context database stored in the SGSN (see column 4, lines 25-35). The reference disclosed the terminal proxy server check its own database, which can be interpreted as a SGSN. And if it is judged that the packet call having the target IP address exists in the packet data protocol context database, starting the packet call tracing and monitoring of an address of the target IP address (see column 4, lines 25-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 10-12, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Kuo (Pat No.: 5959976).

For claim 12, Egan et al. disclosed the method of if it is determined that the network address exists in the packet data protocol context database, then performing at least one of tracing and monitoring of the network address (see column 4, lines 25-35).

Regarding to claim 10, Egan et al. disclosed all the subject matter of the claimed invention with the exception of if it is determined that the network address does not exist in the packet data protocol context database, then setting a trigger flag, wherein the trigger flag includes the network address. Kuo from the same or similar fields of endeavor teaches if it is determined that the network address does not exist in the packet data protocol context database, then setting a trigger flag, wherein the trigger

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flag includes the network address (see column 5, lines 25-35). In the reference, Kuo disclosed that if no data exist in the database, "0" would be set in the database. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Kuo in the network of Egan et al. The motivation for using the method as taught by Kuo in the network of Egan et al. being that it saves recourse and time to determine if the target IP is exist in the database.

Regarding to claim 11, Kuo also teaches to determining if a packet call having the network address included in the trigger flag exists in a packet data protocol context database (see column 5, lines 25-35). In the reference teaches setting "0" can be interpreted as setting a flag. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Kuo in the network of Egan et al. The motivation for using the method as taught by Kuo in the network of Egan et al. being that it saves recourses and time to determine if the target IP is exists in the database.

Regarding to claim 22, Kuo also teaches the step of if it is checked that the target IP address is not the effective IP address in the network to which the corresponding subscriber belongs, returning the system to a state before the request for tracing and monitoring of the target IP address is produced in the IP network (see column 5, lines 43-48). In the reference, it teaches if no data exist, the flag is set "0", and the filter 20 will be disabled, and we can interpreted that before checking for target IP, the system is in disabled or idle mode. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Kuo in the

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network of Egan et al. The motivation for using the method as taught by Kuo in the network of Egan et al. being that it saves resources and time to determine if the target IP is exists in the database.

Regarding to claim 24, Kuo also teaches the step of activating the call tracing and monitoring of the target IP address further comprises the steps of if it is judged that the packet call having the target IP address does not exist in the packet data protocol context database, setting a trigger flag of the target IP address (see column 5, lines 25-35), and if the packet call having an IP address with the set trigger flag exists in the packet data protocol context database, starting the packet call tracing and monitoring of the corresponding IP address. As recited in Egan et al.'s reference, the terminal proxy server check if its database has the target information, and then performing the trace. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Kuo in the network of Egan et al. The motivation for using the method as taught by Kuo in the network of Egan et al. being that it saves resources and time to determine if the target IP is exists in the database.

7. Claims 17 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Sjoblom (Pub No.: 2002/0150096).

For claim 17, Egan et al. disclosed all the subject matter of the claimed invention with the exception of the apparatus is comprised in a gateway GPRS support node.

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Sjoblom from the same or similar fields of endeavor teaches the apparatus is comprised in a gateway GPRS support node (see paragraph 0083, lines 1-8). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Sjoblom in the network of Egan et al. The motivation for using the method as taught by Sjoblom in the network of Egan et al. being that the GGSN can be used to incorporating an interception function and adapted to intercept a communication performed via the corresponding network.

Regarding to 32, Egan et al. disclosed a method of tracing and monitoring a call in a mobile communication system provided with a network management center and a serving general packet radio service (GPRS) support node (GGSN), the method comprising: a first step of a related agency transmitting a target Internet protocol (IP) address subject to a request for tracing and monitoring to the network management center of the mobile communication system (see column 3, lines 47-55); a second step of the network management center requesting a packet call tracing and monitoring of the target IP address to the GGSN (see column 4, lines 25-32); and a third step of the GGSN tracing and monitoring the packet call of the target IP address and transmitting a result of the packet call tracing and monitoring to the network management center (see column 4, lines 32-38). However, Egan et al. did not disclose the method of a serving general packet radio support node (GGSN). Sjoblom teaches the method of GGSN performing interception of data with LEA (Law Enforcement Agency) (see paragraph 0060 lines 1-4, see paragraph 0062, lines 1-6, paragraph 0063, lines 1-12). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the

invention to use the method as taught by Sjoblom in the network of Egan et al. The motivation for using the method as taught by Sjoblom in the network of Egan et al. being that the GGSN can be used to incorporating an interception function and adapted to intercept a communication performed via the corresponding network.

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Igarashi et al. (Pub No.: 2003/0139186).

For claim 25, Egan et al. disclosed all the subject matter of the claimed invention with the exception of the step of performing the packet call tracing and monitoring is a step of the SGSN checking whether a request and change of the packet call, a request for release of the packet call are produced with respect to a message that the SGSN transmits to and receives from a mobile station. Igarashi et al. from the same or similar fields of endeavor teaches the method of performing the packet call tracing and monitoring is a step of the SGSN checking whether a request and change of the packet call, a request for release of the packet call are produced with respect to a message that the SGSN transmits to and receives from a mobile station (see paragraph 0119, lines 1-8). As stated in the reference, the mobile station sends a request for call release to the base station, and in response the base station disconnect the call. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Igarashi et al. in the network of Egan et al. The

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motivation for using the method as taught by Igarashi et al. in the network of Egan et al. being that the in order to access to a particular call channel, the connection of the call channel must release the call prior to the access.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Igarashi et al. (Pub No.: 2003/0139186), as applied to claim 25 above, and further in view of Haumont et al. (Pat No.: 7023825).

For claim 26, Egan et al. and Igarashi et al. disclosed all the subject matter of the claimed invention with the exception the message that the SGSN (see Fig. 5) transmits to and receives from the mobile station includes an active packet data protocol (PDP) context request message that is transmitted from the mobile station to the SGSN and an active PDP context request response message that is transmitted from the SGSN to the mobile station (see column 16, lines 61-67, and see column 17, lines 1-25). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Haumont et al. in the network of Egan et al. and Igarashi et al. The motivation for using the method as taught by Haumont et al. in the network of Egan et al. and Igarashi et al. being that the in order to access to a PDP context database, the connection to the database must be activated prior to the access.

10. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Rantalainen (Pub No.: 2003/0139183).

For claim 27, Egan et al. disclosed all the subject matter of the claimed invention with the exception of at the third step, the SGSN periodically transmits the result of the packet call tracing and monitoring to the network management center. Rantalainen from the same of similar fields of endeavor teaches the method of at the third step, the SGSN periodically transmits the result of the packet call tracing and monitoring to the network management center (see paragraph 0065, lines 1-3). Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Rantalainen in the network of Egan et al. The motivation for using the method as taught by Rantalainen in the network of Egan et al. being that the result is being sent to the destination without any request.

11. Claim 28 and 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egan et al. (Pat No.: 6937572), in view of Miettinen et al. (Pat No.: 6754834).

For claim 28, Egan et al. disclosed all the subject matter of the claimed invention with the exception of further comprising a fourth step of the SGSN inactivating the packet call tracing and monitoring after the third step. Miettinen et al. from the same or similar fields of endeavor teaches the method of further comprising a fourth step of the SGSN inactivating the packet call tracing and monitoring after the third step (see column 5, lines 52-59). In the reference, in step 8, either on a request from the LEA or upon the period of authority of the authorization having expired, the service ceases the interception. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Miettinen et al. in the

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network of Egan et al. The motivation for using the method as taught by Miettinen et al. in the network of Egan et al. being that the tracing performance can be deactivated when time expires.

Regarding to claim 29, Miettinen et al. also teaches the fourth step of inactivating the packet call tracing and monitoring of the target IP address comprises the steps of: the SGSN receiving input of the target IP address subject to inactivation through the network management center ((see column 6, lines 12-26); checking whether the packet call tracing and monitoring of the target IP address is in an active state; and if it is checked that the packet call tracing and monitoring of the target IP address is in the active state, terminating the activation and transmitting a result of the inactivation. As disclosed by Miettinen et al. the access provider ceases the interception or tracing when the time expires or through a request. For checking whether the IP address in an active state, Egan et al. already disclosed check from its own database prior to the tracing or intercepting, therefore if there is tracing performance, there must be IP in the database. Thus, it would have been obvious to the person of ordinary skilled in the art at the time of the invention to use the method as taught by Miettinen et al. in the network of Egan et al. The motivation for using the method as taught by Miettinen et al. in the network of Egan et al. being that the tracing performance can be deactivated when time expires.

Allowable Subject Matter

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12. Claims 30 and 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art failed to teach the method of if it is checked that the packet call tracing and monitoring corresponding to the target IP address is in an inactive state, checking whether a trigger flag for the tracing and monitoring of the target IP is set; and if it is checked that the trigger flag is set, removing the trigger flag and terminating the tracing and monitoring work, as recited in claim 30.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lumme et al. (Pub No.: 2002/0049913), Eloranta (Pub No.: 2002/0051457), and Tourunen et al. (Pub No.: 2002/0001398), are show systems which considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kan Yuen whose telephone number is 571-270-2413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ky



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER